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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)								DATE February 2002	
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense Wide/BA 3						R-1 ITEM NOMENCLATURE SO/LIC Advanced Development PE 0603121D8Z			
COST(In Millions)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost
Total Program Element (PE) Cost	8.543	14.509	13.800	9.484	10.013	10.197	10.390	Continuing	Continuing
Explosive Ordnance Disposal/Low Intensity Conflict/P206	7.317	7.486	7.801	8.115	8.567	8.725	8.890	Continuing	Continuing
Special Operations/Low Intensity Conflict (SO/LIC)/P205	1.226	1.313	1.317	1.369	1.446	1.472	1.500	Continuing	Continuing
Special Reconnaissance Capabilities (SRC)/ P207 (See note below)		5.710*	4.682					Continuing	Continuing
DERF			9.000	7.000	7.000	7.000	7.000		

(U) **A. Mission Description and Budget Item Justification**

(U) **BRIEF DESCRIPTION OF ELEMENT**

(U) P206, Explosive Ordnance Disposal/Low-Intensity Conflict (EOD/LIC). The EOD/LIC program provides advanced technology and equipment solutions to the needs military EOD operators as they face the challenges of homeland defense, force protection and the war on terrorism. EOD/LIC efforts focus primarily on the detection, access, identification, and neutralization of conventional ordnance and improvised explosive threats including weapons of mass destruction. Requirements submitted by the Joint Service EOD community and other EOD-oriented military users are prioritized by the EOD/LIC Coordination Group.

* The R1 reflects this program transferring from USSOCOM to ASD SO/LIC starting in FY 2002. The program will not transfer until FY 2003.

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(U) P205, Special Operations/Low-Intensity Conflict (SO/LIC) Analytical Support. The SO/LIC Analytical Support project provides specialized research and analytical support for the Assistant Secretary of Defense for Special Operations and Low- Intensity Conflict (ASD (SO/LIC). Projects address a broad spectrum of technical, acquisition, and policy issues relating to special operations, counter-and anti-terrorism, peacekeeping, psychological operations, counterinsurgency, unconventional warfare, and contingency operations. The project supports and is integrated into overall DoD efforts to develop options for dealing effectively with a wide range of military responsibilities in military operations other than war. This project provides a vehicle to initiate analysis required to support acquisition documentation and conceptual policy issues regarding roles and missions of SOF in the changing world environment. Analysis may also be used to improve OASD(SO/LIC)'s congressionally mandated oversight function of special operations and low-intensity conflict.

(U) P207, Special Reconnaissance Capabilities (SRC). The SRC program identifies, evaluates, integrates and demonstrates technologies to enhance DoD Special Reconnaissance mission applications. It addresses requirements essential to provide actionable intelligence against high-value, denied area targets. Supporting technologies include the application of unattended ground sensors, tagging, tracking and locating, communications, power management, command, control and networking of sensors, mobility and delivery of sensors and situational awareness interfaces. The SRC program supports multiple requirements and addresses historical special reconnaissance deficiencies.

Note: Beginning FY 2003, the SRC program will be transferred to PE 0603121D8Z. DoD had planned to execute the transfer in FY 2002 but could not accomplish the transfer prior to the budget submission. All FY 2002 funds will be executed as appropriated.

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Explosive Ordnance Disposal/Low Intensity Conflict/P206	7.317	7.486	7.801	8.115	8.567	8.725	8.890	Continuing	Continuing

(U) **Project Number and Title: P206 Explosive Ordnance Disposal/Low Intensity Conflict**

(U) **PROGRAM ACCOMPLISHMENTS AND PLANS**

(U) **FY 2001 Accomplishments:**

- (U) Completed development of an advanced EOD explosive storage system. This system consists of two magazines that will safely store 256 lbs. net explosive weight of EOD tools and equipment. One system was delivered to Al Dhafra AFB, United Arab Emirates in June 2001. The USAF plans to procure 10 additional systems.
- (U) Completed improvements to the unmanned surface vehicle developed under the EOD/LIC program. The focus areas of this effort were to improve vehicle reliability and maintainability, improve data links, ruggedize and reduce in size the command and control system and improve situational awareness capabilities.
- (U) Completed development of a maritime ballistic armor system for the Coastal Assault Craft (CAC) and provide data for input into the Special Operations Craft - Riverine (SOC-R) operational requirement. The armor system provides ballistic protection to the passengers, crew and critical systems of the craft. One complete armor package has been installed on a Naval Special Warfare Development Group CAC and delivered for acceptance testing.

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- (U) Completed a SO/LIC EOD Study to evaluate the lessons learned by EOD teams from each of the NATO countries participating in Kosovo peacekeeping operations. Copies of the report have been delivered to all participating countries.
- (U) Completed task to identify the optimum COTS/GOTS remote chemical and nuclear (CN) sensors for integration onto EOD robotic platforms. The sensors identified were the ADM 300 for alpha, beta and gamma detection and the HAZMATCAD for chemical detection. The sensors are able to identify and quantify CN threats and are easily integrated onto host robotic platforms.
- (U) Completed development of an EOD Tactical Decision Aid (TDA). The TDA is a software based information tool that supports EOD field analysis. The TDA includes: time fuse burn calculations, standard mathematical calculations and unit conversions, blast/frag distance and blast overpressure effects calculations, nuclear weapon stay times, safe swimmer distance from explosions calculations and a time zone conversion tool. The TDA was distributed to EOD units worldwide and will be integrated into the next generation automated EOD publication system in FY 2002.
- (U) Completed development of an EOD incident site C3I system that allows seamless audio, video, and data transfer between the two sites via digital RF link. The system is HERO safe, modular, man-portable and wireless. Two complete systems were delivered to JSEOD.
- (U) Continued development of a system for limpet mine detection. The Limpet Mine Imaging System (LIMIS) is a diver-held or submersible mounted acoustic lens sonar that provides photographic quality images in turbid water. It was developed to detect and identify limpet mines on ship hulls. It is also used to identify bottom mines and other objects where optical systems fail.
- (U) Continued development of an integrated diver display mask. This device consists of an in-mask liquid crystal diver display that provides the diver with depth, dive time and tank pressure via wireless underwater RF link.
- (U) Continued development of an improved underwater demolition charge to counter threats in the very shallow water mine countermeasure (VSW/MCM) area of responsibility. The system will allow a diver to carry multiple charges and will interface with existing and emerging firing devices.

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- (U) Continued development of a small, easy to use limpet mine neutralization tool that will interface with existing and emerging firing devices. This task is scheduled to transition into a product improvement program to upgrade and eventually replace current U.S. Navy EOD limpet render safe tools.
- (U) Continued the development of an EOD laser ordnance neutralization system to demonstrate the use of high-powered diode-pumped lasers to neutralize unexploded ordnance (UXO). This project focuses on neutralizing small UXO on active target ranges. Specific areas being studied include cost benefits, neutralization efficiency, and environmental impact.
- (U) Continued development of a field disassembly system based on hydro-abrasive water cutting technology that will allow EOD technicians to cut open UXO remotely. The system's use will be expanded and integrated with the USAF robotic All-purpose Remote Transport System.
- (U) Continued development of a hull acoustic navigation system for diver's search that will assist EOD divers to ensure thorough hull searches are performed. The system will be man-portable, accurate to within 1-meter and provide real-time location of divers and contacts in the water column and on a ship's hull.
- (U) Continued development of a low-cost and highly portable EOD miniature reconnaissance vehicle (MRV) based on COTS equipment. Potential applications of the vehicle include use as a remote observation post, linking on-site operators to a remote command center, and acting as a mobile platform for auxiliary sensors such as chemical and nuclear alarms with the addition of a disruptor capability.
- (U) Continued development of an EOD underwater search remotely operated vehicle (ROV). The task focuses on the use of COTS systems that have the potential to provide Navy EOD teams with a small (i.e. 2-person portable or smaller) ROV/sensor package for employment from rigid hull inflatable boats (RHIB) or similar small craft of opportunity to reacquire, investigate and identify previously reported mine-like contacts in the water column and on the seabed.

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- (U) Continued development of a SOF Tactical Decision Aid (TDA). The TDA is a software based information tool that supports SOF target analysis operations.
- (U) Continued development of an incident site reconnaissance (ISR) system. This project will provide EOD technicians with a field capability to gather digital imagery, GPS coordinates and laser range finder information with the ability to relay that data to a rear area commander. This system will automate the reconnaissance of an area of interest and provide a communications link by which to relay that information. The data will be transmitted over an RF link to a computer containing an appropriate software package to allow for the overlay of data onto a digital map. COTS technology will be used to the greatest extent possible.
- (U) Continued development of an RF-controlled digital x-ray imaging system. This effort will modify the existing RTR-4 X-ray system used by Joint Service EOD to increase the effective image transfer range from 300 feet to over one (1) mile and through walls via the use of a digital RF link. The system will be configured such that operation can be controlled from the command post of the EOD incident site.
- (U) Continued development of a chemical leak seal system. This system will be used to stop chemical or biological agent leakage from damaged munitions. The system will have minimal set up time, will seal a variety of ordnance types, holes and hole sizes, will utilize COTS materials to the greatest extent possible and will be packaged in a kit to allow for rapid field deployment and ease of use. The system will be an alternative to existing Plaster-of-Paris procedures outlined in EOD publications.
- (U) Continued development of a miniature diver display system that will provide full color, high-resolution imagery to the diver. The system will employ miniature, lightweight optics that will provide a clear, fixed focus, magnified image. The diver will control the image brightness so that the display can be optimized for daytime, or nighttime use.

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- (U) Started the integration of sub-system components onto the robotic miniature reconnaissance vehicle (MRV) developed under a previous EOD/LIC task. This task will integrate the chemical and nuclear sensors also identified under a previous EOD/LIC effort, provide the MRV with an EOD disruption tool capability and incorporate a digital communications and control suite onto the MRV.
- (U) Started development of a single sided x-ray system. This task will explore and develop backscatter x-ray technologies that will give the EOD technician the capability to X-Ray an object without the necessity to move or place a film cassette or imager behind the object of interest
- (U) Started development to expand the capabilities of the EOD Information System (EODIS) Advanced EOD Publications System (AEODPS). This effort will convert preprocessed legacy information from text fields in the corporate database into discreet data elements, validating that information and proving the ability to reassemble the information properly to the user in the form of the existing AEODPS product.
- (U) Started development of an EOD large package X-ray apparatus. It is anticipated that the system shall incorporate a grid arrangement of fifteen 8" X 10" X-ray film cassettes to provide the user with a large mosaic image.
- (U) Started development of an unmanned reconnaissance and observation craft (UROC) for riverine environments. The focus will be on forwarding technology developed under the unmanned surface vehicle task and optimizing size for deployment from special operations riverine craft.
- (U) Started development of a CO2 Laser Ordnance Neutralization System mounted on the All-purpose Remote Transport System (ARTS) for EOD range clearance applications.
- (U) Started development of an EOD dispersion suppressive system to reduce the damage caused by the detonation of a range of explosive devices and hazardous substances. The effort will focus on COTS items or materials.
- (U) Started development of an EOD improved incendiary tool that will be more effective and efficient than the M-14 Thermite Grenade.

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- (U) Started development of an EOD X-ray interpreter. This effort will develop the means to identify and interpret the components and contents of digital X-ray images utilizing custom software and recognition algorithms.
- (U) Started development of an obscurant system for the Special Operations Craft - Riverine (SOC-R).
- (U) Started development of a SOF incendiary device. This device will have the capability to adhere to vertical and overhead surfaces as well as mines placed on the ground.
- (U) Started development of a remote automated munitions clearance system utilizing the commercially available Tele-present-Rapid-Aiming-Platform (TRAP). The system will be evaluated for EOD standoff munitions disruption applications.
- (U) Started integration of the 90mm water cannon recoilless aiming system onto the USAF All-purpose Remote Transport System as part of a technology exploration initiative for emergent or compelling requirements.
- (U) **FY 2002 Plans:**
- (U) Complete development of a field disassembly system based on hydro-abrasive water cutting technology that will allow EOD technicians to cut open UXO remotely. The system's use will be expanded and integrated with the USAF robotic All-purpose Remote Transport System.
- (U) Complete development of an integrated diver display mask. This device consists of an in-mask liquid crystal diver display that provides the diver with depth, dive time and tank pressure via wireless underwater RF link.

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- (U) Complete development of a low-cost and highly portable Remote EOD miniature reconnaissance vehicle (MRV) based on COTS equipment. Potential applications of the vehicle include use as a remote observation post, linking on-site operators to a remote command center, and acting as a mobile platform for auxiliary sensors such as chemical and nuclear alarms with the addition of a disruptor capability.
- (U) Complete development of a SOF Tactical Decision Aid (TDA). The TDA is a software based information tool that supports SOF target analysis operations.
- (U) Complete development of an incident site reconnaissance (ISR) system. This project will provide EOD technicians with a field capability to gather digital imagery, GPS coordinates and laser range finder information with the ability to relay that data to a rear area commander. This system will automate the reconnaissance of an area of interest and provide a communications link to relay that information. The data will be transmitted over an RF link to a computer containing an appropriate software package to allow for the overlay of data onto a digital map. COTS technology will be used to the greatest extent possible.
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- (U) Complete development of an EOD large package X-ray apparatus. It is anticipated that the system shall incorporate a grid arrangement of fifteen 8" X 10" X-ray film cassettes to provide the user with a large mosaic image.
- (U) Continue development of a system for limpet mine detection. The Limpet Mine Imaging System (LIMIS) is a diver-held or submersible mounted sonar that provides photographic quality images in turbid water. It was developed to detect and identify limpet mines on hulls of ships. It is also used to identify bottom mines and other objects where optical systems fail.
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- (U) Continue the development of an EOD laser ordnance neutralization system to demonstrate the use of high-powered diode-pumped lasers to neutralize unexploded ordnance (UXO). This project focuses on neutralizing small UXO on active target ranges. Specific areas being studied include cost benefits, neutralization efficiency, and environmental impact.
- (U) Continue development of an improved underwater demolition charge to counter threats in the very shallow water mine countermeasure (VSW/MCM) area of responsibility. The system will allow a diver to carry multiple charges and will interface with existing and emerging firing devices.

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- (U) Continue development of a small, easy to use limpet mine neutralization tool that will interface with existing and emerging firing devices. This task is scheduled to transition into a product improvement program to upgrade and eventually replace existing U.S. Navy EOD limpet tools.
- (U) Continue development/evaluation of a fragmentation protection shelter. The shelter is man-portable, easy to setup and provides frontal and overhead protection during the performance of EOD operations.
- (U) Continue development of an EOD underwater search remotely operated vehicle (ROV). The task focuses on the use of COTS systems that have the potential to provide Navy EOD teams with a small (i.e. 2-person portable or smaller) ROV/sensor package for employment from rigid hull inflatable boats (RHIB) or similar small craft of opportunity to reacquire, investigate and identify previously reported mine-like contacts in the water column and on the seabed.
- (U) Continue development of a single sided X-ray system. This task will explore and develop technologies that will give the EOD technician the capability to X-Ray an object without the necessity to place a film cassette or imager behind the object of interest.
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- (U) Continue development of a CO2 Laser Ordnance Neutralization System mounted on the All-purpose Remote Transport System (ARTS) for EOD range clearance applications.
- (U) Continue development of an EOD dispersion suppressive system to reduce the damage caused by the detonation of a range of explosive devices and hazardous substances. The effort will focus on COTS items or materials.
- (U) Continue development of an EOD improved incendiary tool that will be more effective and efficient than the M-14 Thermite Grenade.
- (U) Continue development to expand the capabilities of the EOD Information System (EODIS) Advanced EOD Publications System (AEODPS). This effort will convert preprocessed legacy information from text fields in the corporate database into discreet data elements, validating that information and proving the ability to reassemble the information properly to the user in the form of the existing AEODPS product.
- (U) Continue the integration of sub-system components onto the robotic miniature reconnaissance vehicle (MRV) developed under a previous EOD/LIC task. This task will integrate the chemical and nuclear sensors also identified under a previous EOD/LIC effort, provide the MRV with an EOD disruption tool capability and incorporate a digital communications and control suite onto the MRV.
- (U) Continue integration of the 90mm water cannon recoilless aiming system onto the USAF All-purpose Remote Transport System.
- (U) Continue technology exploration initiatives in response to unforeseen emergent or compelling requirements.
- (U) Start effort to adapt existing automated EOD ordnance identification guide software to commercial PDA equipment. The PDA will fit into the cargo pocket of the Battle Dress Uniform (BDU) and comply with standing security requirements.

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- (U) Start development of a flame-retardant, antistatic garment to be worn by EOD operators during the performance of EOD operations with explosives. The garment should be of single piece construction, easily donned and doffed and approved for use during the performance of EOD operations with explosives.
- (U) Start the integration of the EOD/LIC C3I, Incident Site Reconnaissance and the Remotely Controlled Digital RF X-ray systems into a single multiple use system. The new system will combine all command and control features, avoid proprietary software and comply with DoD and industry standards.
- (U) Start development of a digital database for creating, storing and retrieving Joint Service EOD (JSEOD) incident reports. The system will provide EOD technicians the means to exercise existing JSEOD incident report databases, develop the means to digitally capture future reports into a workable database and provide JSEOD with a standardized format.
- (U) Start effort to evaluate thermal imaging systems for EOD applications. The focus of the effort will be on COTS system performance of locating ordnance and improvised explosive items within packages, building structures and buried below the surface of the ground.
- (U) Start development/evaluation of a real-time digital radiography system for large improvised explosive devices and port mortuary operations.
- (U) Start the integration of the Tele-present Rapid Aiming (weapons) Platform into the USAF robotic All-purpose Remote Transport System (ARTS) to support EOD standoff munitions disruption operations. This effort will combine all optical and command and control systems into the ARTS.
- (U) Start development of an insensitive explosive that meets DOT Hazardous Classification 1.4 specifications and possess the performance specifications of military C-4 explosives. The insensitive explosive should also be low cost and environmentally safe.

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- (U) Start development of a shock tube initiation module for the Remote Activation Munitions System (RAMS) firing device. The module will add a new capability to the RAMS that will enable special operations forces and EOD technicians to utilize military and commercially available shock tube for non-electric demolition procedures.

- (U) Start development of a bladderless (single membrane) lift balloon system to support the recovery of underwater ordnance during mine countermeasure operations.

- (U) **FY 2003 Plans:**

- (U) Complete development of a system for limpet mine detection. The Limpet Mine Imaging System (LIMIS) is a diver-held or submersible mounted sonar that provides photographic quality images in turbid water. It was developed to detect and identify limpet mines on hulls of ships. It is also used to identify bottom mines and other objects where optical systems fail.

- (U) Complete development of a hull acoustic navigation system for diver search that will assist EOD divers to ensure thorough hull searches are performed. The system will be man-portable, accurate to within 1-meter and provide real-time location of divers and contacts in the water column and on a ship's hull.

- (U) Complete the development of an EOD laser ordnance neutralization system to demonstrate the use of high-powered diode-pumped lasers to neutralize unexploded ordnance (UXO). This project focuses on neutralizing small UXO on active target ranges. Specific areas being studied include cost benefits, neutralization efficiency, and environmental impact.

- (U) Complete development of an improved underwater demolition charge to counter threats in the very shallow water mine countermeasure (VSW/MCM) area of responsibility. The system will allow a diver to carry multiple charges and will interface with existing and emerging firing devices.

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- (U) Complete development of a small, easy to use limpet mine neutralization tool that will interface with existing and emerging firing devices. This task is scheduled to transition into a product improvement program to upgrade and eventually replace existing U.S. Navy EOD limpet tools.
- (U) Complete development/evaluation of a fragmentation protection shelter. The shelter is man-portable, easy to setup and provides frontal and overhead protection during the performance of EOD operations.
- (U) Complete development of an EOD underwater search remotely operated vehicle (ROV). The task focuses on the use of COTS systems that have the potential to provide Navy EOD teams with a small (i.e. 2-person portable or smaller) ROV/sensor package for employment from rigid hull inflatable boats (RHIB) or similar small craft of opportunity to reacquire, investigate and identify previously reported mine-like contacts in the water column and on the seabed.
- (U) Complete development of an obscurant system for the Special Operations Craft - Riverine (SOC-R).
- (U) Continue the integration of sub-system components onto the robotic miniature reconnaissance vehicle (MRV) developed under a previous EOD/LIC task. This task will integrate the chemical and nuclear sensors also identified under a previous EOD/LIC effort, provide the MRV with an EOD disruption tool capability and incorporate a digital communications and control suite onto the MRV.
- (U) Complete integration of the 90mm water cannon recoilless aiming system into the USAF All-purpose Remote Transport System.
- (U) Complete effort to adapt existing automated EOD ordnance identification guide software to commercial PDA equipment. The PDA will fit into the cargo pocket of the Battle Dress Uniform (BDU) and comply with standing security requirements.
- (U) Complete development of a flame-retardant, antistatic garment to be worn by EOD operators during the performance of EOD operations with explosives. The garment should be of single piece construction, easily donned and doffed and approved for use during the performance of EOD operations with explosives.

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- (U) Complete effort to evaluate thermal imaging systems for EOD applications. The focus of the effort will be on COTS system performance of locating ordnance and improvised explosive items within packages, building structures and buried below the surface of the ground.
- (U) Complete development of an EOD large package X-ray apparatus. It is anticipated that the system shall incorporate a grid arrangement of fifteen 8" X 10" X-ray film cassettes to provide the user with a large mosaic image.
- (U) Continue development of a single sided x-ray system. This task will explore and develop technologies that will give the EOD technician the capability to X-Ray an object without the necessity to place a film cassette or imager behind the object of interest.
- (U) Continue development of an EOD X-ray interpreter. This effort will develop the means to identify and interpret the components and contents of digital X-ray images utilizing custom software and recognition algorithms.
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- (U) Continue development of a SOF incendiary device. This device will have the capability to adhere to vertical and overhead surfaces as well as mines placed on the ground.
- (U) Continue development of a CO2 Laser Ordnance Neutralization System mounted on the All-purpose Remote Transport System (ARTS) for EOD range clearance applications.
- (U) Continue development of an EOD dispersion suppressive system to reduce the damage caused by the detonation of a range of explosive devices and hazardous substances. The effort will focus on COTS items or materials.

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APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense Wide/BA 3	R-1 ITEM NOMENCLATURE SO/LIC Advanced Development PE 0603121D8Z	

- (U) Continue development of an EOD improved incendiary tool that will be more effective and efficient than the M-14 Thermite Grenade.
- (U) Continue development to expand the capabilities of the EOD Information System (EODIS) Advanced EOD Publications System (AEODPS). This effort consists of converting preprocessed legacy information from text fields in the corporate database to discreet data elements, validating that information and proving the ability to reassemble the information properly to the user in the form of the existing AEODPS product.
- (U) Continue the integration of the EOD/LIC C3I, Incident Site Reconnaissance and the Remotely Controlled Digital RF X-ray systems into a single multiple use system. The new system will combine all command and control features, avoid proprietary software and comply with DoD and industry standards.
- (U) Continue development of a digital database for creating, storing and retrieving Joint Service EOD (JSEOD) incident reports. The system will provide EOD technicians the means to exercise existing JSEOD incident report databases, develop the means to digitally capture future reports into a workable database and provide JSEOD with a standardized format.
- (U) Continue development/evaluation of a real-time digital radiography system for large improvised explosive devices and port mortuary operations.
- (U) Continue the integration of the Tele-present Rapid Aiming (weapons) Platform onto the USAF robotic All-purpose Remote Transport System (ARTS) to support EOD standoff munitions disruption operations. This effort will combine all optical and command and control systems into the ARTS.
- (U) Continue development of an insensitive explosive that meets DOT Hazardous Classification 1.4 specifications and possess the performance specifications of military C-4 explosives. The insensitive explosive should also be low cost and environmentally safe.

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- (U) Continue development of a shock tube initiation module for the Remote Activation Munitions System (RAMS) firing device. The module will add a new capability to the RAMS that will enable special operations forces and EOD technicians to utilize military and commercially available shock tube for non-electric demolition procedures.
- (U) Continue development of a bladderless (single membrane) lift balloon system to support the recovery of underwater ordnance during mine countermeasure operations.
- (U) Continue technology exploration initiatives in response to unforeseen emergent or compelling requirements.
- (U) NEW STARTS – EOD/LIC candidate submission input was received June 2002. Candidate selection was conducted in summer 2002 for additional FY 2003 new start tasks.
- (U) Start development and integration of an optical system for the USAF robotic All-purpose Remote Transport System that will provide a remote viewing capability able to peer into or through access holes cut into vehicles or buildings.
- (U) Start development of an improved underwater bottom mine countermeasure charge that utilizes a modular configuration, acoustic firing device technology and is easier to assembly than current bulk high explosive satchel charges.
- (U) Start development of an improved underwater mine countermeasure charge system for moored mine countermeasure operations.
- (U) Start development of a 3D ship hull database to assist EOD divers during limpet mine countermeasure planning and execution.
- (U) Start development of a wrist-worn EOD underwater data resource device that will allow the EOD diver to access digital information underwater regardless of visibility.
- (U) Start testing and evaluation of fiberscope and video scope optical equipment for EOD applications. The task will focus on commercial non-developmental items.

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- (U) Start the development of an improved EOD hook and line tool kit. The task will focus on improving performance and efficiency of hook and line tools as well as form/fit functionality issues.

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<i>COST(In Millions)</i>	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost
Total Program Element (PE) Cost	8.543	14.509	13.800	9.484	10.013	10.197	10.390	Continuing	Continuing
Special Operations/Low Intensity Conflict (SO/LIC)/P205	1.226	1.313	1.317	1.369	1.446	1.472	1.500	Continuing	Continuing

(U) Project Number and Title: P205 Special Operations/Low Intensity Conflict (SO/LIC)

(U) PROGRAM ACCOMPLISHMENTS AND PLANS

(U) FY 2001 Accomplishments:

- (U) Completed prototype of handheld voice-to-voice language translation capability.
- (U) Initiated voice-to-voice data extraction and data mining feasibility study.
- (U) Initiated cognitive analysis tool research to support planning and execution of special operations and low intensity conflict.
- (U) Continued research efforts for a Human Factors Assessment and Selection Tool addressing human factors requirements and relationships with respect to employing advanced technology, personnel selection and SOF training.
- (U) Conducted "Readiness 21" study assessing personnel and unit readiness issues against 21st century issues.
- (U) Initiated study on future SOF Roles and Missions.

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(U) FY 2002 Plans:

- (U) Continue operator field assessment of handheld voice-to-voice language translation capability.
- (U) Complete voice-to-voice data extraction and data mining feasibility study.
- (U) Complete cognitive analysis tool research to support planning and execution of special operations and low intensity conflict.
- (U) Complete analysis of future SOF roles and missions.

(U) FY 2003 Plans:

- (U) The FY 2003 program will be finalized in August 2002, ensuring that study projects are timely and responsive to the requirements of DoD policy makers.

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<i>COST(In Millions)</i>	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Cost
Total Program Element (PE) Cost	8.543	14.509	13.800	9.484	10.013	10.197	10.390	Continuing	Continuing
Special Reconnaissance Capabilities (SRC)/ P207		5.710*	4.682					Continuing	Continuing

(U) Project Number and Title: P207 SO/LIC Advanced Development, Special Reconnaissance Capabilities

(U) PROGRAM ACCOMPLISHMENTS AND PLANS

(U) FY2001 Accomplishments:

- (U) Initiated acquisition and test of advanced development sensor and tagging technologies in support of operational special reconnaissance requirements.
- (U) Completed development of an advanced Remote Sensor and Camera Controller that serves as a communications/sensor hub for sensor data relay and cueing.
- (U) Provided rapid-prototype units to support urgent mission requirements.

(U) FY 2002 Plans:

- (U) Continue development, test, and operationalization of special reconnaissance related technology to include integration of sensors, communication, and power requirements.
- (U) Develop remote sensor and camera controller in support of multiple DoD agency and service requirements.

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(U) Initiate research on advanced measurement and signature tagging and sensing technologies in concert with Central MASINT Office

(U) FY 2003 Plans:

(U) Continue development, test, and operationalization of special reconnaissance related technology to include integration of sensors, communication, and power requirements.

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<u>(U) B. Program Change Summary</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Total Cost</u>
<u>Previous President's Budget Submit</u>	8.622	8.750	9.881	
<u>Delta</u>	0.079	0.045	0.000	
<u>FY 2002 Amended President's Budget Submit</u>	8.543	8.799	9.881	<u>Continuing</u>
<u>Appropriated Value</u>	8.622	10.199	0.000	<u>Continuing</u>
<u>Adjustments to Appropriated Value</u>				
<u>a. Congressionally Directed Undistributed Reduction</u>	0.000	0.000	0.000	
<u>b. Rescission/Below-threshold Reprogramming, Inflation Adjustment</u>	-0.079	0.000	0.000	
<u>c. Other</u>	0.000	4.310	3.919	
<u>Current FY 2003 Budget Submission</u>	8.543	14.509	13.800	<u>Continuing</u>

Change Summary Explanation:

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(U) Funding: Funding changes are due to congressional undistributed reductions and inflation adjustments. FY 2001 reductions reflect Section 8086 adjustments. FY 2002 /FY 2003 reflects the transfer from USSOCOM to SO/LIC for special reconnaissance capabilities.

(U) Schedule: N/A

(U) Technical: Funding changes are due to congressional undistributed reductions and inflation adjustments.

(U) C. Other Program Funding Summary Cost: N/A

(U) D. Acquisition Strategy: N/A

(U) E. Schedule Profile: N/A